

Course Outcome of Subject MATHEMATICS

(Regular Course) of CBCS System

SEMESTER – I

Paper : MAT-RC-1016: Calculus

Course Outcome

Learning to compute limits, derivatives, and integrals. To analyze functions using limits, derivatives, and integrals. To recognize the appropriate tools of calculus to solve applied problems.

SEMESTER – II

Paper : MAT-RC-2016: Algebra

Course Outcome

Learning algebra helps to develop students critical thinking skills, that includes problem solving, logic, patterns and reasoning. The study of algebra helps student in logical thinking and enables a student to break down a problem first and then find its solution.

SEMESTER – III

Paper : MAT-RC-3016: Differential Equations

Course Outcome

- i) Students will be able to explain the concept of differential equation,
- ii) Will be able to solve first order or binary differential equations,

- iii) Will be able to find solution of higher-order linear differential equations,
- iv) Will be able to solve systems of linear differential equations.

SEMESTER – IV

Paper : MAT-RC-4016: Real Analysis

Course Outcome

Real Analysis is an area of mathematics that was developed to formalize the study of numbers and functions and to investigate important concepts such as limit and continuity. Students will learn to describe the fundamental properties of the real numbers and underpin the formal development of real analysis.

SEMESTER – V

Paper : MAT-RE-5016: Number Theory

Course Outcome

Students will learn how to interpret the concepts of divisibility, prime number, congruence and number theorems. Also help practice on divisibility demonstrating uniqueness of distinguishing prime number factors at integers. Additionally, students will have practice on linear congruence and quadratic linear congruence.

SEMESTER – V

Paper : MAT-RE-5026: Discrete Mathematics

Course Outcome

- i) Students will learn to use logical notation,
- ii) Perform logical proofs,

- iii) Apply recursive functions and solve recurrence relations,
- iv) Determine equivalence logic expressions,
- v) Describe useful standard library functions, create functions, and declare parameters,
- vi) Use graphs and trees,
- vii) Apply basic and advanced principles of counting.

SEMESTER – VI

Paper : MAT-RE-6016: Numerical Analysis

Course Outcome

Learning numerical analysis helps student to know derivation of numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and non-linear equations. Students have to know how to analyze and evaluate the accuracy of common numerical methods.

SEMESTER – VI

Paper : MAT-RE-6026: Programming in C

Course Outcome

The course is designed to provide complete knowledge of C language. Students will be able to develop logics which will help them to create programs, applications in C. Also by learning the basic programming constructs, they can easily switch over to any other language in future.